CLAIMS

1. A work vehicle travel control device that controls travel of a work vehicle (1) in accordance with set lines (L1) indicating a relationship between an operation stroke of an operation device (21) and a speed ratio of left and right crawler tracks (10L, 10R) or wheels of a vehicle body (9), wherein

a first line (L11) on which the speed ratio decreases corresponding to a change in the operation stroke,

a second line (L12) that has hysteresis with respect to the first line (L11) and on which the speed ratio increases corresponding to a change in the operation stroke, and

third lines (L131, L132, L133, L134) on which the speed ratio changes corresponding to a change in the operation stroke and the change in the speed ratio with respect to the change in the operation stroke is smaller than that of the first line (L11) and that of the second line (L12),

are set, and

control means (20) is provided for controlling the speed ratio

to decrease in accordance with the first line (L11) when the operation device (21) is operated from a point on the first line (L11) in a direction that the speed ratio decreases,

to increase in accordance with the second line (L12) when the operation device (21) is operated from a point on the second line (L12) in a direction that the speed ratio increases,

to change in accordance with the third lines (L131, L132, L133, L134) when the operation device (21) is operated from a point on the first line (L11) in a direction that the speed ratio increases, or when the operation device (21) is operated from a point on the second line (L12) in a direction that the speed ratio decreases.

2. A travel control program for a work vehicle in which lines (L1) indicating a relationship between an operation stroke of an operation device (21) and a speed ratio of left and right crawler tracks (10L, 10R) or wheels on a vehicle body (9) are set as specified below, and which when incorporated in a travel control device (20) of a work vehicle (1) operates as specified below:

1) a first line (L11) on which the speed ratio decreases corresponding to a change in the operation stroke,

a second line (L12) that has hysteresis with respect to the first line (L11) and on which the speed ratio increases corresponding to a change in the operation stroke, and

third lines (L131, L132, L133, L134) on which the speed ratio changes corresponding to a change in the operation stroke and the change in the speed ratio with respect to the change in the operation stroke is smaller than that of the first line (L11) and that of the second line (L12),

are set,

2) when the operation device (21) is operated from a point on the first line (L11) in a direction that the speed ratio decreases, the speed ratio is calculated in accordance with the first line (L11),

3) when the operation device (21) is operated from a point on the second line (L12) in a direction that the speed ratio increases, the speed ratio is calculated in accordance with the second line (L12),

4) when the operation device (21) is operated from a point on the first line (L11) in a direction that the speed ratio increases, or when the operation device (21) is operated from a point on the second line (L12) in a direction that the speed ratio decreases, the speed ratio is calculated in accordance with the third lines (L131, L132, L133, L134).

3. The work vehicle travel control device according to claim 1 or the work

vehicle travel control program according to claim 2, wherein

the second line (L12) is set so that the change in the speed ratio with respect to the change in the operation stroke is smaller than that of the first line (L11), and

the third lines (L131, L132, L133, L134) are set so that the larger the speed ratio on a line the larger the range of the operation stroke.

4. The work vehicle travel control device according to claim 1, for controlling the speed ratio so that a target speed ratio is reached after a time delay from a time the operation device (21) is operated, wherein

the speed ratio is controlled so that the time delay when the speed ratio is controlled in accordance with the third lines (L131, L132, L133, L134) is smaller than the time delay when the speed ratio is controlled in accordance with the first line (L11) or the second line (L12).

5. The travel control program for the work vehicle according to claim 2, for generating a control electrical signal so that a calculated target speed ratio is reached with a time delay, wherein

the control electrical signal is generated so that the time delay when the speed ratio is calculated in accordance with the third lines (L131, L132, L133, L134) is smaller than the time delay when the speed ratio is calculated in accordance with the first line (L11) or the second line (L12).

6. The work vehicle travel control device according to claim 1 or claim 4, wherein

drive shafts of hydraulic motors (7, 8, 55) are connected to the left and the right crawler tracks (10L, 10R) or the wheels of the vehicle body (9),

the operation device (21) is an electrical operation device that outputs

an electrical signal corresponding to the operation stroke, and

a controller (20) receives the outputted electrical signal from the operation device (21), and controls the speed ratio by changing a rate of rotation of the hydraulic motors (7, 8, 55) in accordance with the operation stroke.

7. A work vehicle travel control device that controls a control quantity of a work vehicle (1) in accordance with set lines (L3) indicating a relationship between an operation quantity of an operation device (70) and the control quantity, wherein

a first line (L31) on which the control quantity changes corresponding to an increase in the operation quantity,

a second line (L32) that has hysteresis with respect to the first line (L31) and on which the control quantity changes corresponding to a decrease in the operation quantity, and

third lines (L331, L332, L333, L334) on which the control quantity changes corresponding to a change in the operation quantity and the change in the control quantity corresponding to the change in the operation quantity is smaller than that of the first line (L31) and that of the second line (L32), are set, and

control means (220) is provided for controlling the control quantity

to change in accordance with the first line (L31) when the operation device (70) is operated from a point on the first line (L31) in a direction that the operation quantity increases,

to change in accordance with the second line (L32) when the operation device (70) is operated from a point on the second line (L32) in a direction that the operation quantity decreases,

to change in accordance with the third lines (L331, L332, L333, L334)

when the operation device (70) is operated from a point on the first line (L31) in the direction that the operation quantity decreases, or when the operation device (70) is operated from a point on the second line (L32) in the direction that the operation quantity increases.

8. A control program for a work vehicle in which lines (L3) indicating a relationship between an operation quantity of an operation device (70) and a control quantity are set as specified below, and which when incorporated in a control device (220) of the work vehicle (1) operates as specified below:

1) a first line (L31) on which the control quantity changes corresponding to an increase in the operation quantity,

a second line (L32) that has hysteresis with respect to the first line (L31) and on which the control quantity changes corresponding to a decrease in the operation quantity, and

third lines (L331, L332, L333, L334) on which the control quantity changes corresponding to a change in the operation quantity and the change in control quantity corresponding to the change in the operation quantity is smaller than that of the first line (L31) and that of the second line (L32),

are set,

2) when the operation device (70) is operated in a direction that the operation quantity increases from a point on the first line (L31), the control quantity is calculated in accordance with the first line (L31),

3) when the operation device (70) is operated in a direction that the operation quantity decreases from a point on the second line (L32), the control quantity is calculated in accordance with the second line (L32), and

4) when the operation device (70) is operated in a direction that the control quantity decreases from a point on the first line (L31), or when the operation device (70) is operated in a direction that the control quantity

increases from a point on the second line (L32), the control quantity is calculated in accordance with the third lines (L331, L332, L333, L334).